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✓ Other CGN

PTO-1590 (9-90)

Shears, Beverly

From: Devi, Sarvamangala
Sent: Tuesday, December 09, 2003 12:46 PM
To: Shears, Beverly
Subject: RE: 10/878,781

Beverly:

The correct number should be 09/878,781.

-----Original Message-----
From: Shears, Beverly
Sent: Tuesday, December 09, 2003 9:28 AM
To: Devi, Sarvamangala
Subject: RE: 10/878,781

Pls. re-check this number. No CRF listing avail.

-----Original Message-----
From: Devi, Sarvamangala
Sent: Tuesday, December 09, 2003 7:37 AM
To: Shears, Beverly
Subject: 10/878,781

Beverly:

In application 10/878,781, would you please perform a sequence and an interference search for:

A. A protein having the amino acid sequence of SEQ ID NO: 4;
B. A fragment of SEQ ID NO: 4 having 1-336 amino acids; and
C. An at least 5 amino acid-long peptide of SEQ ID NO: 4.

Thanks.

S. DEVI, Ph.D.
AU 1645
CM1-7E15

Shears, Beverly

From: Devi, Sarvamangala
Sent: Tuesday, December 09, 2003 7:37 AM
To: Shears, Beverly
Subject: 10/878,781

Beverly:

In application 10/878,781, would you please perform a sequence and an interference search for:

A. A protein having the amino acid sequence of SEQ ID NO: 4;
B. A fragment of SEQ ID NO: 4 having 1-336 amino acids; and
C. An at least 5 amino acid-long peptide of SEQ ID NO: 4.

Thanks.

S. DEVI, Ph.D.
AU 1645
CM1-7E15

SEQ ID NO. 4 fragment.

```
RESULT 17
AAW55089
ID   AAW55089 standard; Protein; 333 AA.
XX
AC   AAW55089;
XX
DT   02-OCT-1998  (first entry)
XX
DE   Streptococcus pneumoniae SP0035 protein.
XX
KW   Streptococcus pneumoniae; antigen; vaccine; infection; diagnosis;
KW   detection; pneumonia; otitis media; meningitis.
XX
OS   Streptococcus pneumoniae.
XX
PN   WO9818930-A2.
XX
PD   07-MAY-1998.
XX
PF   30-OCT-1997;   97WO-US19422.
XX
PR   31-OCT-1996;   96US-0029960.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Choi GH,  Hromockyj A,  Johnson LS,  Kunsch CA;
XX
DR   WPI; 1998-272224/24.
DR   N-PSDB; AAV27350.
XX
PT   Nucleic acid encoding antigenic peptide(s) from Streptococcus
PT   pneumoniae - or their epitope-containing fragments, useful in
PT   protective or therapeutic vaccines, and for diagnosis
XX
PS   Claim 11; Page 59; 118pp; English.
XX
CC   The present sequence represents a protein from Streptococcus pneumoniae.
CC   The nucleic acid sequence encoding the Streptococcus pneumoniae protein
CC   can be useful in vaccines for inducing protective antibodies against
CC   Streptococcus pneumoniae, for treatment or prevention of infection e.g.
CC   pneumonia, otitis media or meningitis. Probes based on the nucleic acid
CC   are used to detect Streptococcus infection (by usual hybridisation or
CC   amplification methods), also for isolating Streptococcus genes or their
CC   allelic variants. The protein can be used similarly to detect specific
CC   antibodies in standard immunoassays, especially for diagnosing or
CC   monitoring infections. Antibodies which bind the protein are used to
CC   detect corresponding antigens, to purify the protein and for passive
CC   immunisation (optionally coupled to a toxin). Vaccines are administered,
CC   e.g. by injection, orally or through the skin, typically at 0.01-1000
CC   (especially 10-300) mu g/ml per dose.
XX
SQ   Sequence   333 AA;

  Query Match            17.6%;  Score 59;  DB 19;  Length 333;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-50;
  Matches   59;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        173 GLMTTIHAYTGDQMILDGPHRGGDLRRARAGAANIVPNSTGAAKAIGLVIPELNGKLDG 231
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        171 GLMTTIHAYTGDQMILDGPHRGGDLRRARAGAANIVPNSTGAAKAIGLVIPELNGKLDG 229
```

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RESULT 5
AAR56486
ID   AAR56486 standard; Protein; 336 AA.
XX
AC   AAR56486;
XX
DT   25-MAR-2003  (updated)
DT   22-FEB-1995  (first entry)
XX
DE   Plasmin receptor.
XX
KW   Plasmin receptor; isolate 64/14; plasmin; alpha-2-antiplasmin;
KW   plasminogen activator; bleeding; reocclusion; thrombosis;
KW   pulmonary embolism; clots.
XX
OS   Streptococcus pyogenes.
XX
PN   US5328996-A.
XX
PD   12-JUL-1994.
XX
PF   10-AUG-1992;   92US-0928462.
XX
PR   29-MAR-1989;   89US-0330849.
PR   16-MAY-1990;   90US-0524411.
PR   10-AUG-1992;   92US-0928462.
XX
PA   (UYFL ) UNIV FLORIDA RES FOUND INC.
XX
PI   Boyle MDP,  Broder C,  Lottenberg R,  Von Mering G;
XX
DR   WPI; 1994-225327/27.
DR   N-PSDB; AAQ70705.
XX
PT   New DNA encoding bacterial plasmin receptor - useful as
PT   thrombolytic agents, used with plasminogen activator or bound to
PT   plasmin, also useful in vaccines against bacterial infection
XX
PS   Claim 1; Column 27-30; 19pp; English.
XX
CC   This sequence represents the S. pyogenes plasmin receptor.  The DNA
CC   encoding this sequence was isolated from the S. pyogenes clinical
CC   isolate 64/14.  The plasmin receptor has a very high affinity for
CC   plasmin which, when bound, retains its enzymatic activity but is not
CC   regulated (inhibited) by alpha-2-antiplasmin.  The receptor protein,
CC   when administered concurrently or sequentially, prolongs the activity
CC   of plasminogen activator (PA) so allows a reduction in dose, and thus
CC   lowers the risk of bleeding, and may prevent reocclusion of blood
CC   vessels.  The protein may be coupled to a fibrin-specific monoclonal
CC   antibody to provide targetting to clots.  The plasmin receptor may
CC   be useful in human or veterinary medicine, for treatment of thrombosis
CC   and pulmonary embolism, and for solubilising clots in catheters or
CC   shunts.
CC   (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence   336 AA;
```

SEQ ID NO. 4.

```
  Query Match             99.8%;  Score 1711;  DB 15;  Length 336;
  Best Local Similarity   99.4%;  Pred. No. 1.8e-144;
  Matches  334;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MVVKVGINGFGRIGRLAFRRIQNVEGVEVTRINDLTDPNMLAHLLKYDTTQGRFDGTVEV 60
              ||||||||||||||||||||||:||||||||||||||||||||||||||||||||||||||
Db          1 MVVKVGINGFGRIGRLAFRRIQNIEGVEVTRINDLTDPNMLAHLLKYDTTQGRFDGTVEV 60

Qy         61 KEGGFEVNGNFIKVSAERDPENIDWATDGVEIVLEATGFFAKKEAAEKHLHANGAKKVVI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KEGGFEVNGNFIKVSAERDPENIDWATDGVEIVLEATGFFAKKEAAEKHLHANGAKKVVI 120

Qy        121 TAPGGNDVKTVVFNTNHDILDGTETVISGASCTTNCLAPMAKALHDAFGIQKGLMTTIHA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TAPGGNDVKTVVFNTNHDILDGTETVISGASCTTNCLAPMAKALHDAFGIQKGLMTTIHA 180

Qy        181 YTGDQMILDGPHRGGDLRRARAGAANIVPNSTGAAKAIGLVIPELNGKLDGAAQRVPVPT 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 YTGDQMILDGPHRGGDLRRARAGAANIVPNSTGAAKAIGLVIPELNGKLDGAAQRVPVPT 240

Qy        241 GSVTELVVTLDKNVSVDEINAAMKAASNDSFGYTEDPIVSSDIVGVSYGSLFDATQTKVM 300
              ||||||||||||||||||:||||||||||||||||||||||||||||||||||||||||||
Db        241 GSVTELVVTLDKNVSVDEINSAMKAASNDSFGYTEDPIVSSDIVGVSYGSLFDATQTKVM 300

Qy        301 EVDGSQLVKVVSWYDNEMSYTAQLVRTLEYFAKIAK 336
              |||||||||||||||||||||||||||||||||||||
Db        301 EVDGSQLVKVVSWYDNEMSYTAQLVRTLEYFAKIAK 336
```

SEQ ID NO: 4

```
RESULT 1
A42963
glyceraldehyde-3-phosphate dehydrogenase (phosphorylating) (EC 1.2.1.12) - Streptococc
N;Alternate names: plasmin receptor
C;Species: Streptococcus sp.
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 03-Jun-2002
C;Accession: A42963; B42963; JH0750
R;Lottenberg, R.; Broder, C.C.; Boyle, M.D.; Kain, S.J.; Schroeder, B.L.; Curtiss III,
J. Bacteriol. 174, 5204-5210, 1992
A;Title: Cloning, sequence analysis, and expression in Escherichia coli of a streptocc
A;Reference number: A42963; MUID:92355491; PMID:1322883
A;Accession: A42963
A;Molecule type: DNA
A;Residues: 1-336 <LOT>
A;Experimental source: group A, strain 64/14
A;Note: sequence extracted from NCBI backbone (NCBIP:110308)
A;Accession: B42963
A;Molecule type: protein
A;Residues: 2-74;161-164,'X',166-174;187-211,'X',213-217 <LO2>
R;Pancholi, V.; Fischetti, V.A.
J. Exp. Med. 176, 415-426, 1992
A;Title: A major surface protein on group A streptococci is a glyceraldehyde-3-phospha
A;Reference number: JH0750; MUID:92364544; PMID:1500854
A;Accession: JH0750
A;Molecule type: protein
A;Residues: 2-30,'A',32-40 <PAN>
C;Superfamily: glyceraldehyde-3-phosphate dehydrogenase
C;Keywords: gluconeogenesis; glycolysis; homotetramer; NAD; oxidoreductase
F;152/Active site: Cys #status predicted

  Query Match             99.8%;  Score 1711;  DB 2;  Length 336;
  Best Local Similarity   99.4%;  Pred. No. 4e-116;
  Matches  334;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MVVKVGINGFGRIGRLAFRRIQNVEGVEVTRINDLTDPNMLAHLLKYDTTQGRFDGTVEV 60
              ||||||||||||||||||||||||:|||||||||||||||||||||||||||||||||||
Db          1 MVVKVGINGFGRIGRLAFRRIQNIEGVEVTRINDLTDPNMLAHLLKYDTTQGRFDGTVEV 60

Qy         61 KEGGFEVNGNFIKVSAERDPENIDWATDGVEIVLEATGFFAKKEAAEKHLHANGAKKVVI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KEGGFEVNGNFIKVSAERDPENIDWATDGVEIVLEATGFFAKKEAAEKHLHANGAKKVVI 120

Qy        121 TAPGGNDVKTVVFNTNHDILDGTETVISGASCTTNCLAPMAKALHDAFGIQKGLMTTIHA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TAPGGNDVKTVVFNTNHDILDGTETVISGASCTTNCLAPMAKALHDAFGIQKGLMTTIHA 180

Qy        181 YTGDQMILDGPHRGGDLRRARAGAANIVPNSTGAAKAIGLVIPELNGKLDGAAQRVPVPT 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 YTGDQMILDGPHRGGDLRRARAGAANIVPNSTGAAKAIGLVIPELNGKLDGAAQRVPVPT 240

Qy        241 GSVTELVVTLDKNVSVDEINAAMKAASNDSFGYTEDPIVSSDIVGVSYGSLFDATQTKVM 300
              ||||||||||||||||||:|||||||||||||||||||||||||||||||||||||||||
Db        241 GSVTELVVTLDKNVSVDEINSAMKAASNDSFGYTEDPIVSSDIVGVSYGSLFDATQTKVM 300

Qy        301 EVDGSQLVKVVSWYDNEMSYTAQLVRTLEYFAKIAK 336
              |||||||||||||||||||||||||||||||||||||
Db        301 EVDGSQLVKVVSWYDNEMSYTAQLVRTLEYFAKIAK 336
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